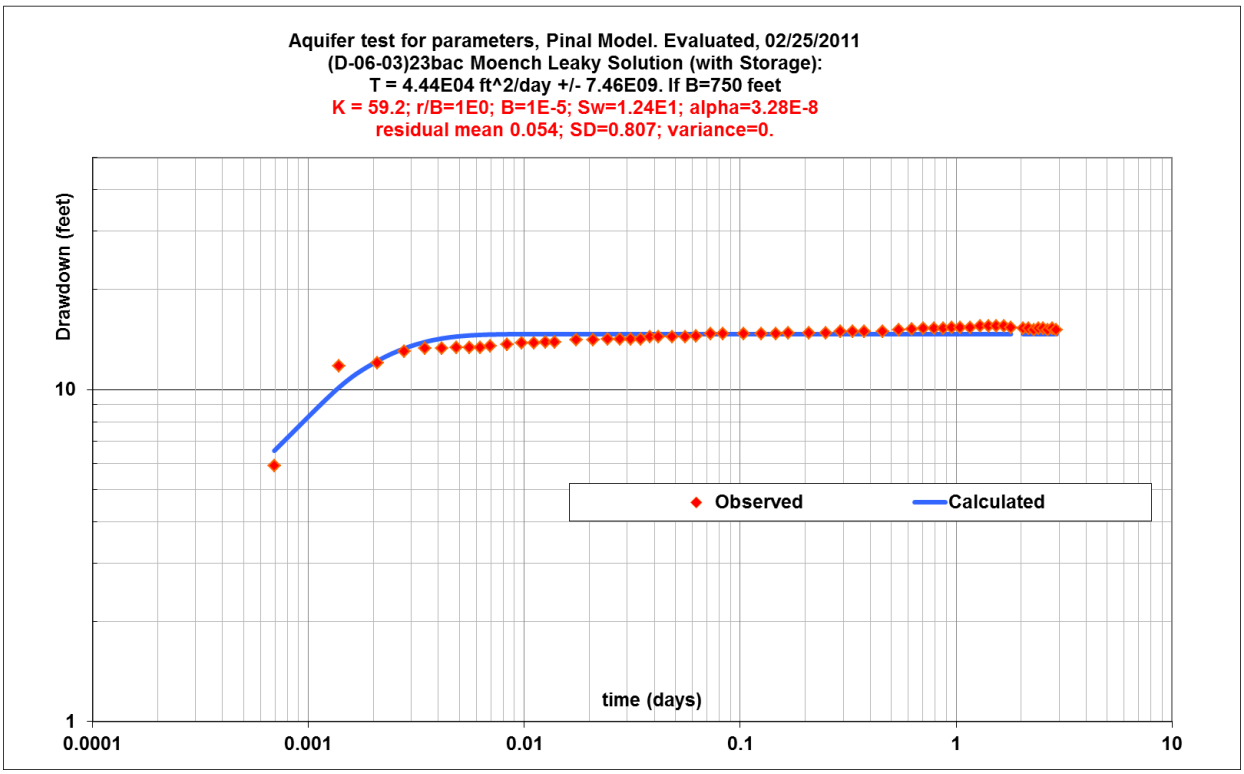
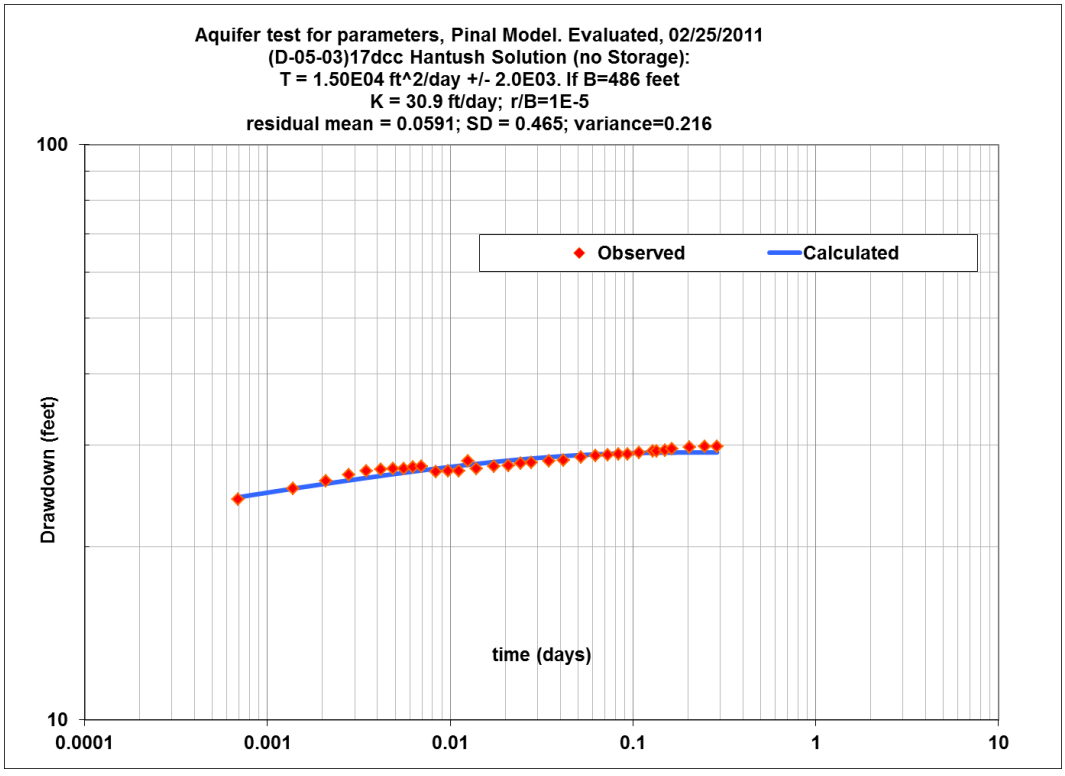
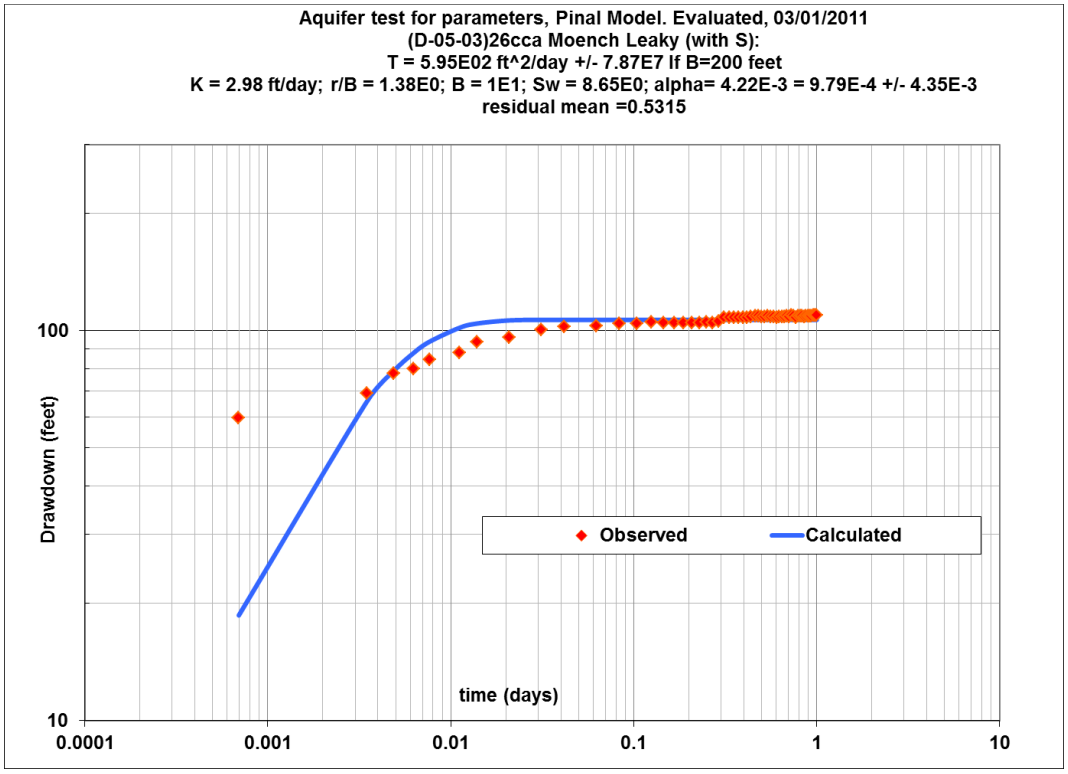
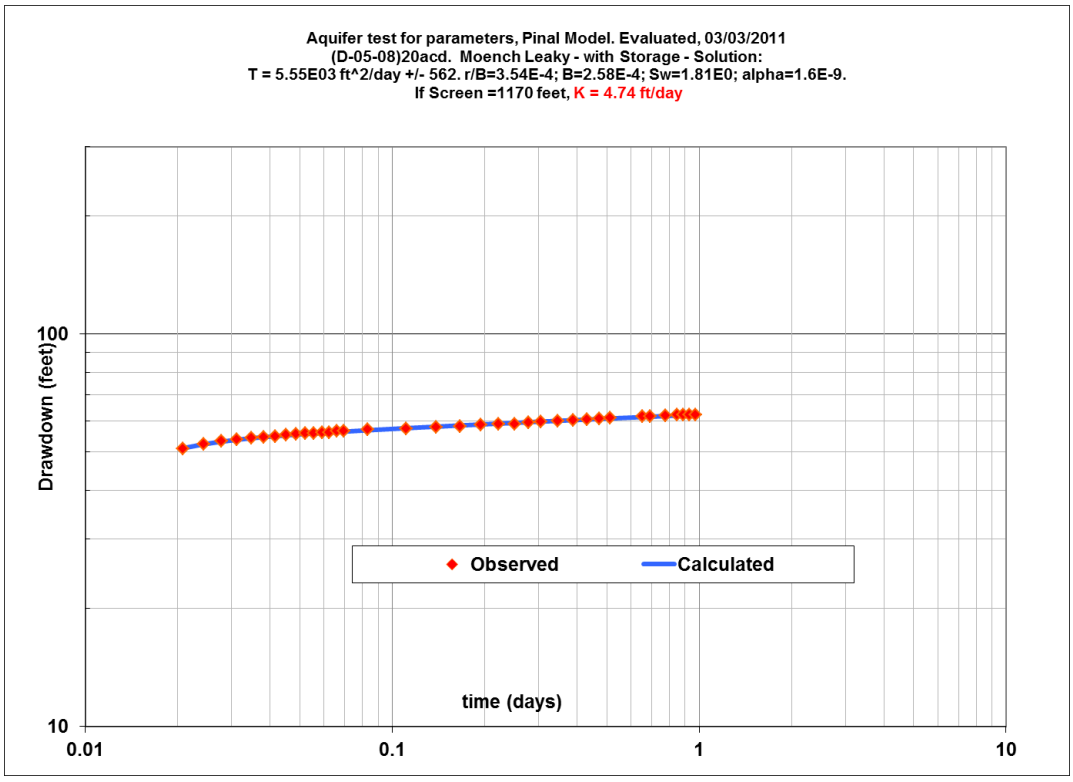
Appendix B

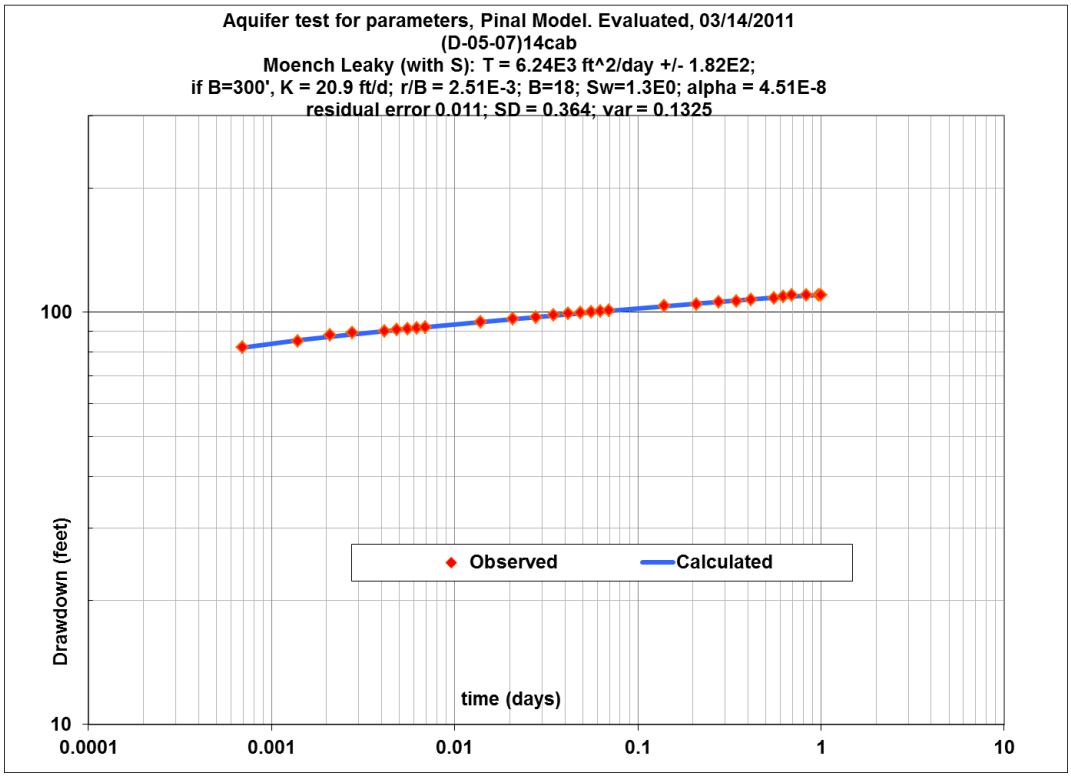
Aquifer Test Analyses - Comparisons of Simulated and Observed Drawdowns For Selected Wells Using Leaky Aquifer Solutions

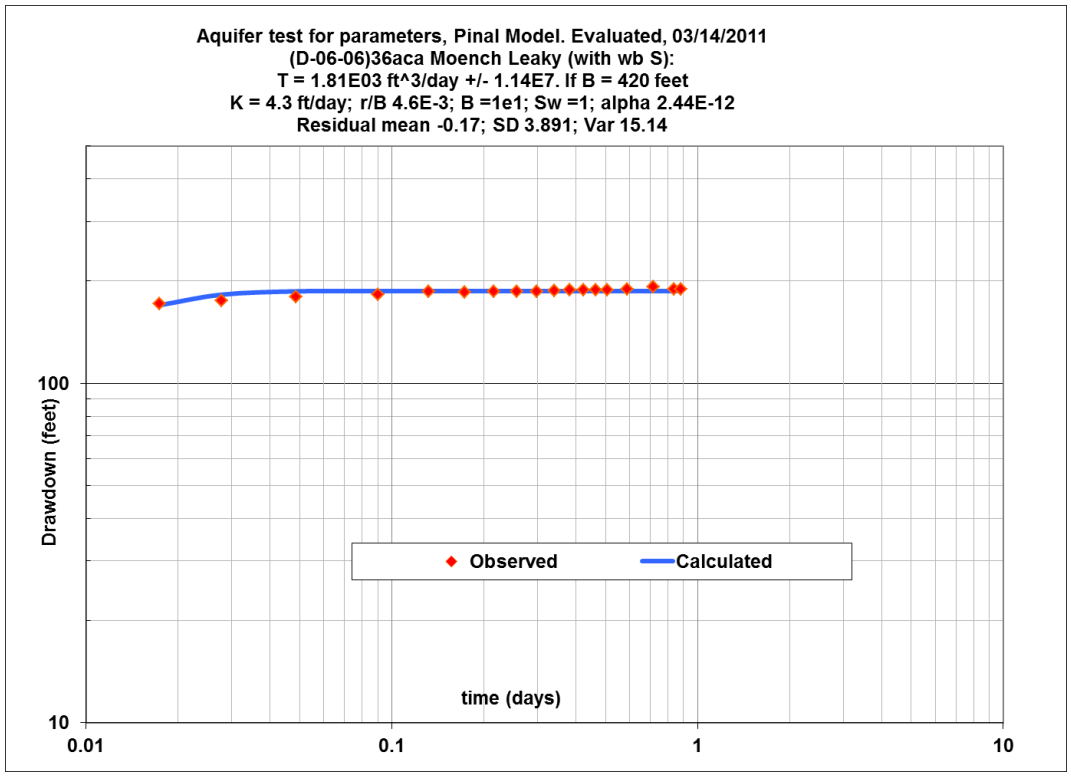

Aquifer test for parameters, Pinal Model. Evaluated, 02/25/2011
(D-06-03)23bac Moench Leaky Solution (with Storage):
T = 4.44E04 ft^2/day +/- 7.46E09. If B=750 feet
K = 59.2; r/B=1E0; B=1E-5; Sw=1.24E1; alpha=3.28E-8
residual mean 0.054; SD=0.807; variance=0.
Drawdown (feet)
10
1
Observed
Calculated
time (days)
0.0001
0.001
0.01
0.1
1
10

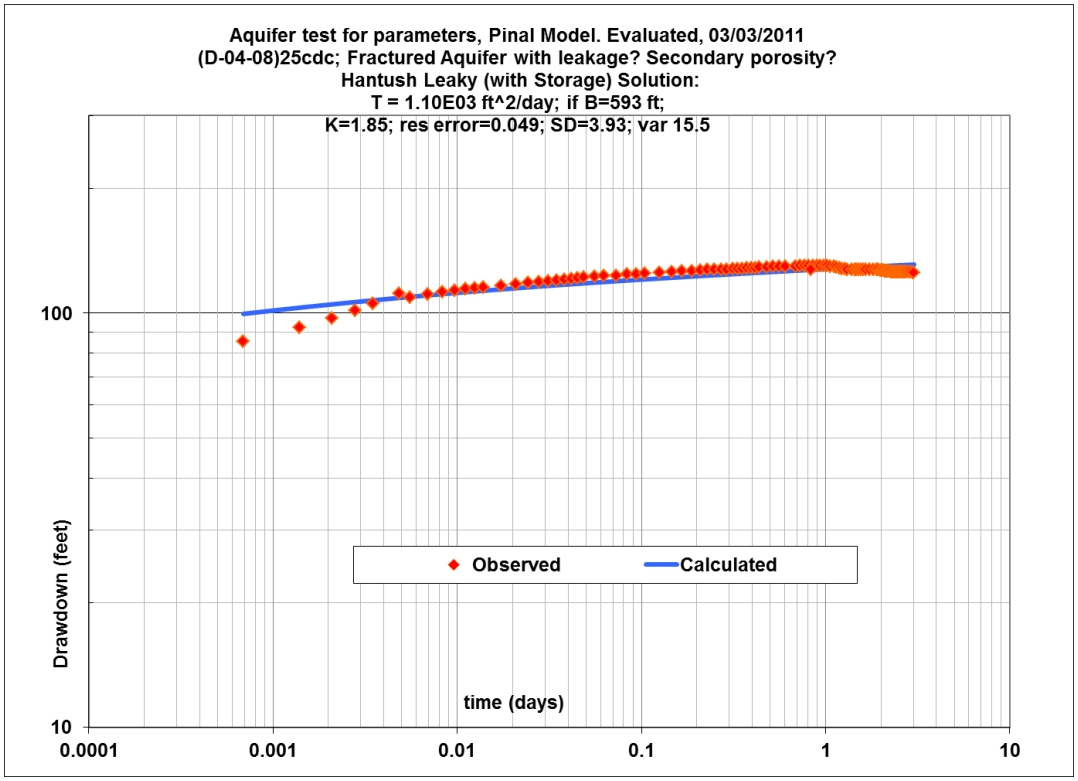

Aquifer test for parameters, Pinal Model. Evaluated, 02/25/2011
(D-05-03)17dcc Hantush Solution (no Storage):
T = 1.50E04 ft^2/day +/- 2.0E03. If B=486 feet
K = 30.9 ft/day; r/B=1E-5
residual mean = 0.0591; SD = 0.465; variance=0.216
100
Drawdown (feet)
10
Observed
Calculated
time (days)
0.0001
0.001
0.01
0.1
1
10

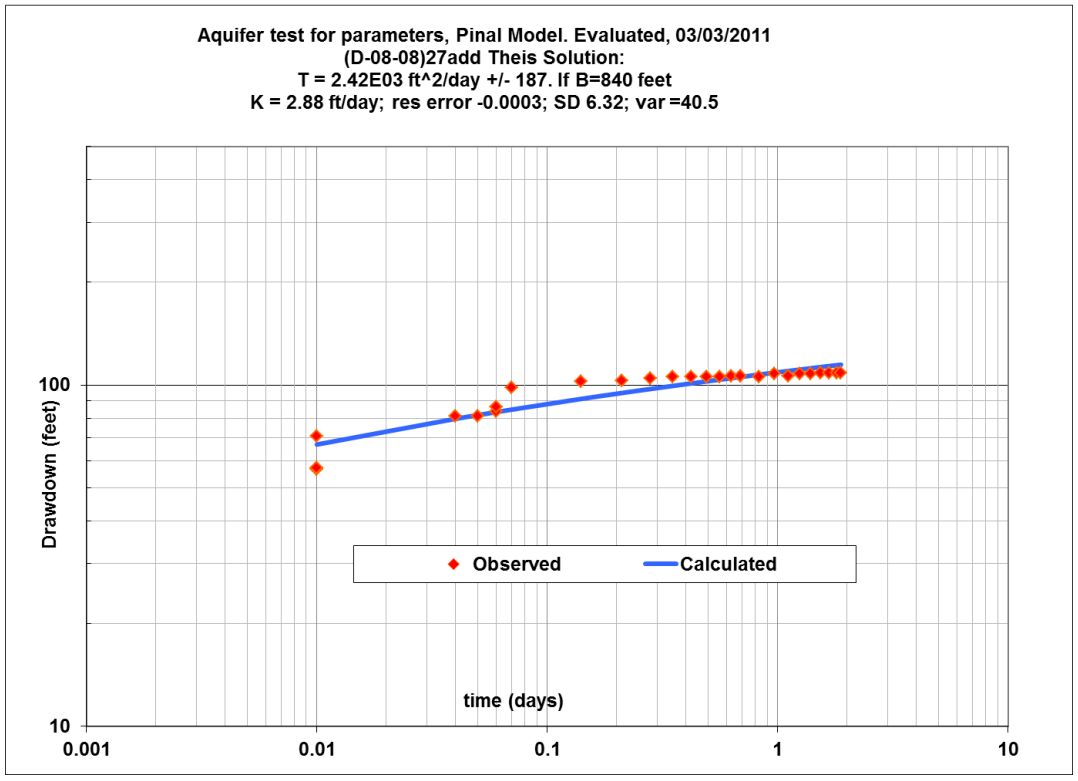

Aquifer test for parameters, Pinal Model. Evaluated, 03/01/2011
(D-05-03)26cca Moench Leaky (with S):
T = 5.95E02 ft^2/day +/- 7.87E7 If B=200 feet
K = 2.98 ft/day; r/B = 1.38E0; B = 1E1; Sw = 8.65E0; alpha= 4.22E-3 = 9.79E-4 +/- 4.35E-3
residual mean =0.5315
Drawdown (feet)
100
10
time (days)
0.0001
0.001
0.01
0.1
1
10
Observed
Calculated

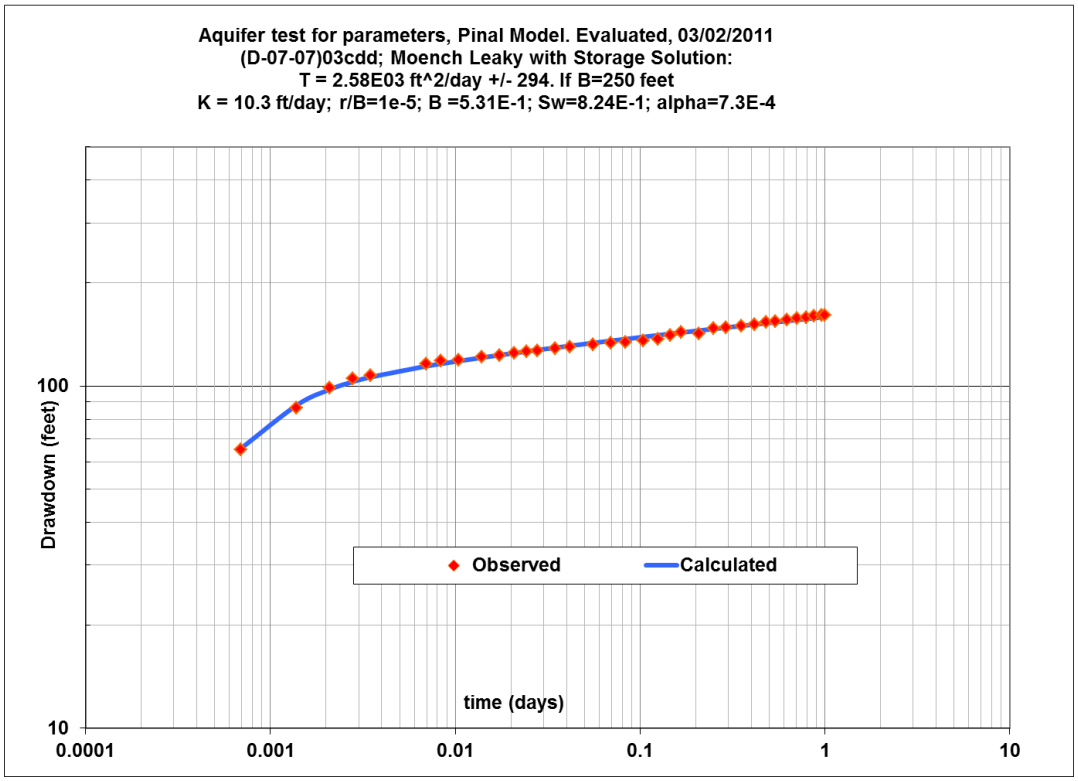

Aquifer test for parameters, Pinal Model. Evaluated, 03/03/2011
(D-05-08)20acd. Moench Leaky - with Storage - Solution:
T = 5.55E03 ft^2/day +/- 562. r/B=3.54E-4; B=2.58E-4; Sw=1.81E0; alpha=1.6E-9.
If Screen =1170 feet, K = 4.74 ft/day
Drawdown (feet)
100
10
time (days)
0.01
0.1
1
10
Observed
Calculated

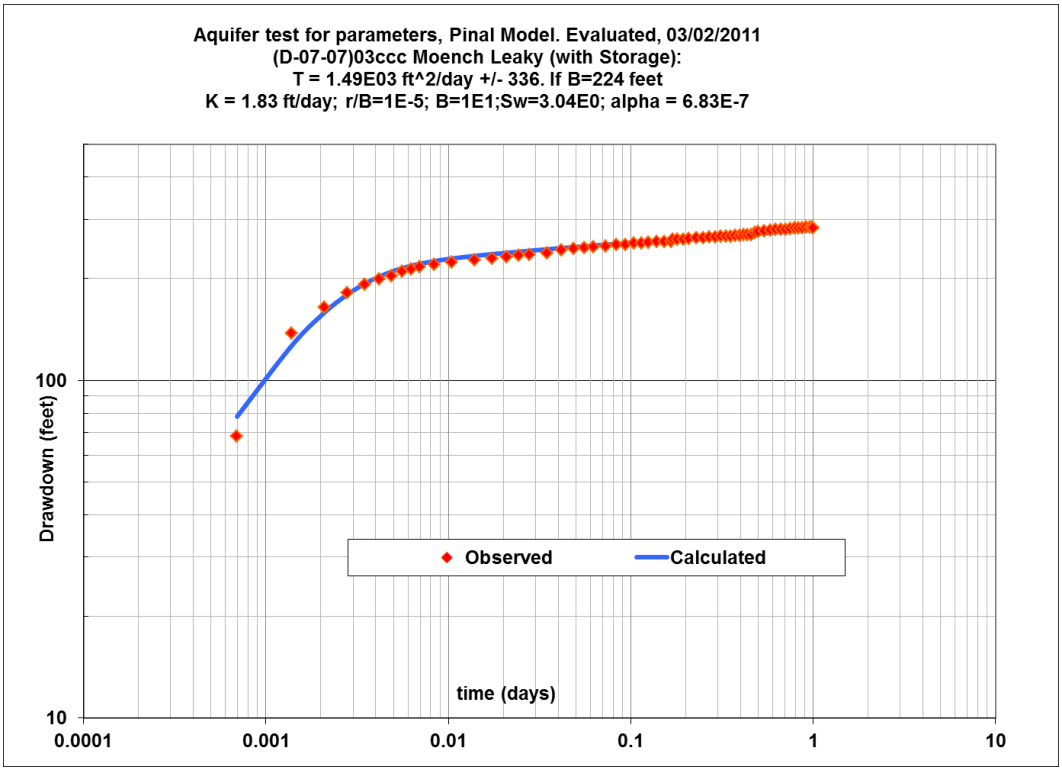

Aquifer test for parameters, Pinal Model. Evaluated, 03/14/2011
(D-05-07)14cab
Moench Leaky (with S): T = 6.24E3 ft^2/day +/- 1.82E2;
if B=300', K = 20.9 ft/d; r/B = 2.51E-3; B=18; Sw=1.3E0; alpha = 4.51E-8
residual error 0.011; SD = 0.364; var = 0.1325
Drawdown (feet)
100
10
Observed
Calculated
time (days)
0.0001
0.001
0.01
0.1
1
10

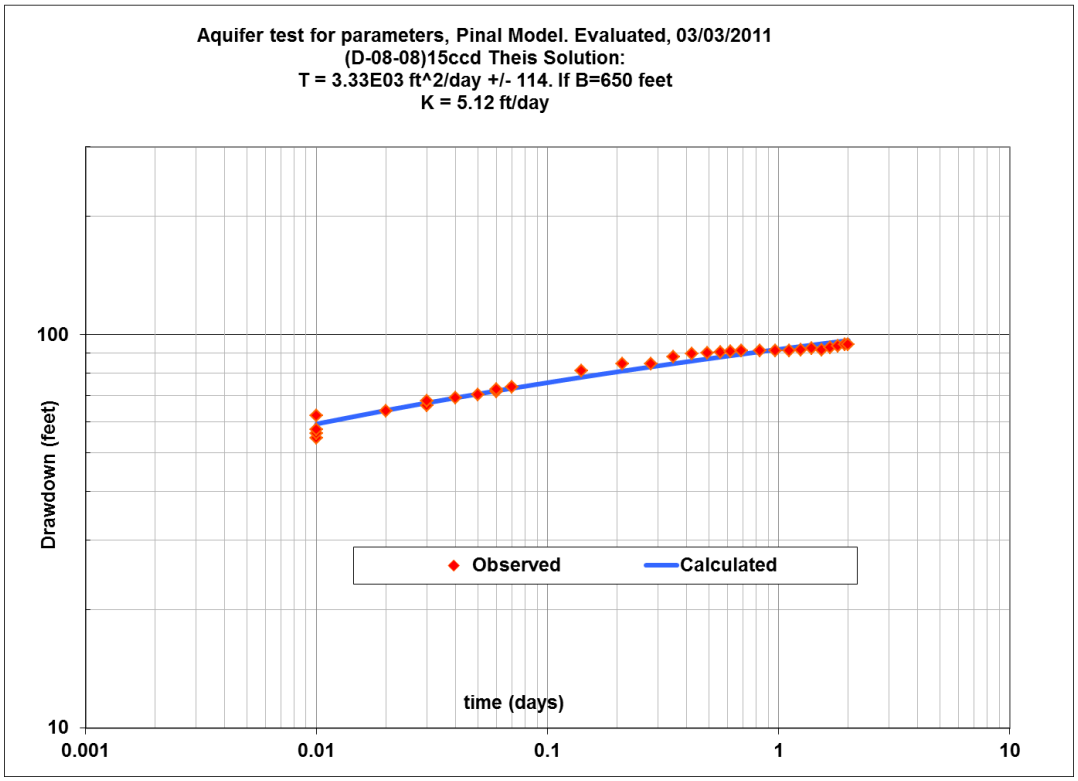

Aquifer test for parameters, Pinal Model. Evaluated, 03/14/2011
(D-06-06)36aca Moench Leaky (with wb S):
T = 1.81E03 ft^3/day +/- 1.14E7. If B = 420 feet
K = 4.3 ft/day; r/B 4.6E-3; B =1e1; Sw =1; alpha 2.44E-12
Residual mean -0.17; SD 3.891; Var 15.14
Drawdown (feet)
100
10
Observed
Calculated
time (days)
0.01
0.1
1
10

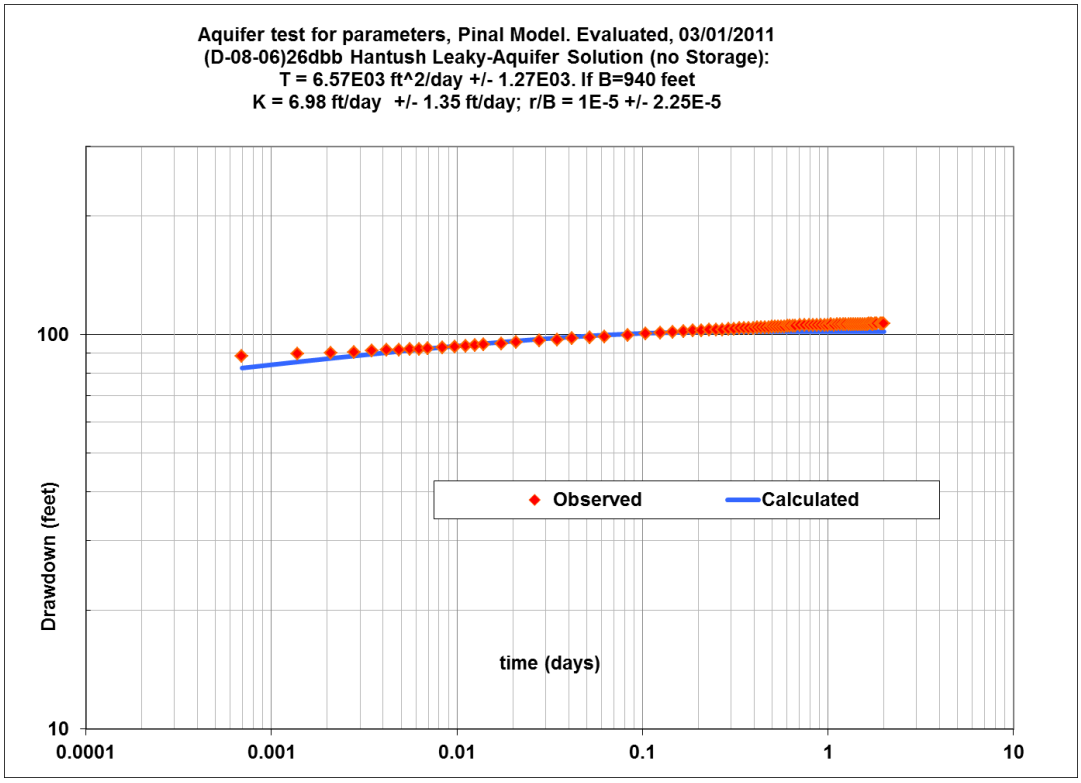

Aquifer test for parameters, Pinal Model. Evaluated, 03/03/2011
(D-04-08)25cdc; Fractured Aquifer with leakage? Secondary porosity?
Hantush Leaky (with Storage) Solution:
T = 1.10E03 ft^2/day; if B=593 ft;
K=1.85; res error=0.049; SD=3.93; var 15.5
Drawdown (feet)
100
10
Observed
Calculated
time (days)
0.0001
0.001
0.01
0.1
1
10

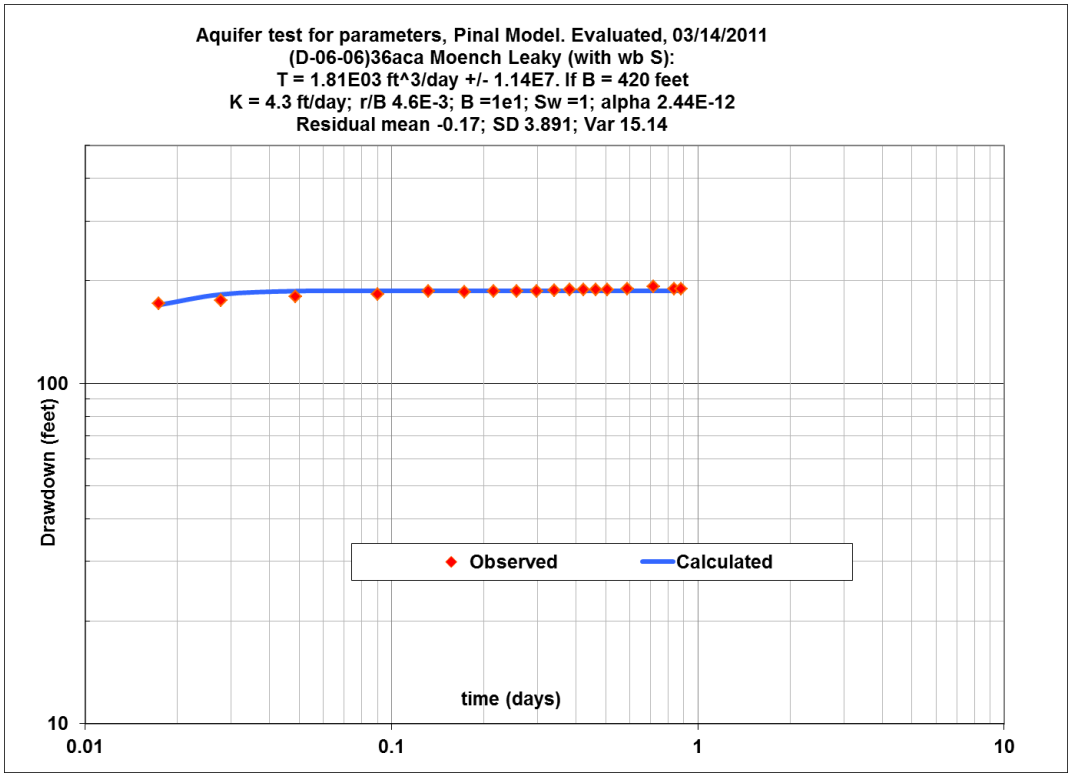

Aquifer test for parameters, Pinal Model. Evaluated, 03/03/2011
(D-08-08)27add Theis Solution:
T = 2.42E03 ft^2/day +/- 187. If B=840 feet
K = 2.88 ft/day; res error -0.0003; SD 6.32; var =40.5
Drawdown (feet)
100
10
Observed
Calculated
time (days)
0.001
0.01
0.1
1
10

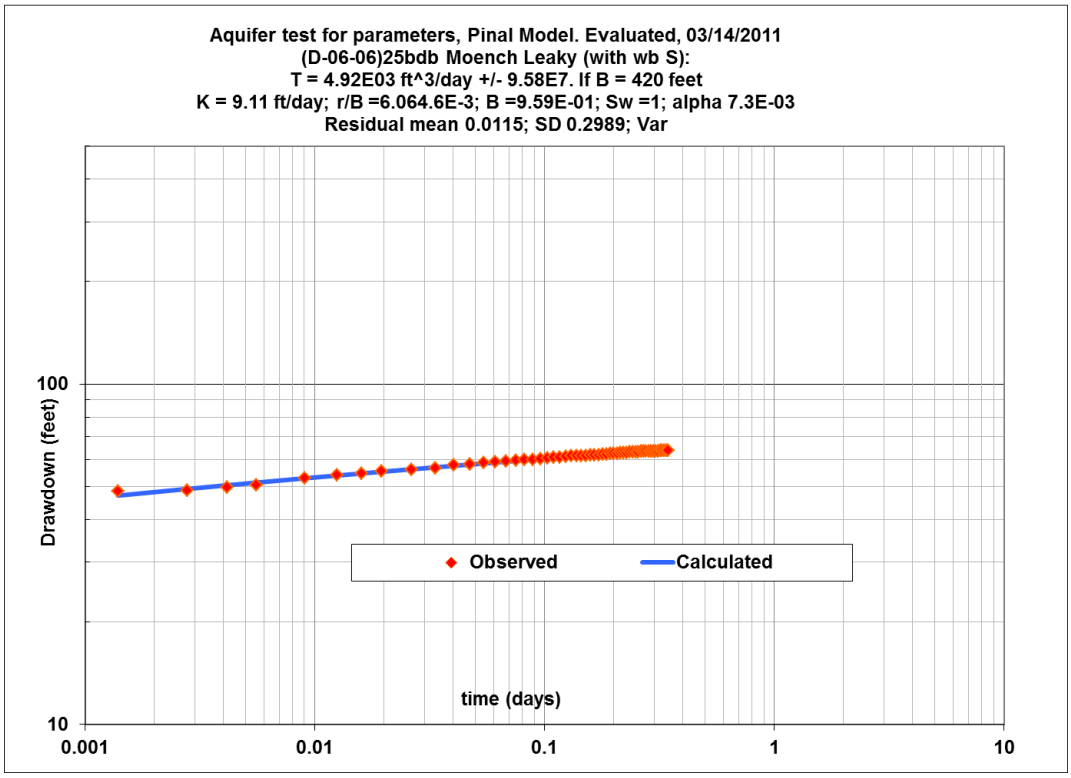

Aquifer test for parameters, Pinal Model. Evaluated, 03/02/2011
(D-07-07)03cdd; Moench Leaky with Storage Solution:
T = 2.58E03 ft^2/day +/- 294. If B=250 feet
K = 10.3 ft/day; r/B=1e-5; B =5.31E-1; Sw=8.24E-1; alpha=7.3E-4
Drawdown (feet)
100
10
time (days)
0.0001
0.001
0.01
0.1
1
10
Observed
Calculated

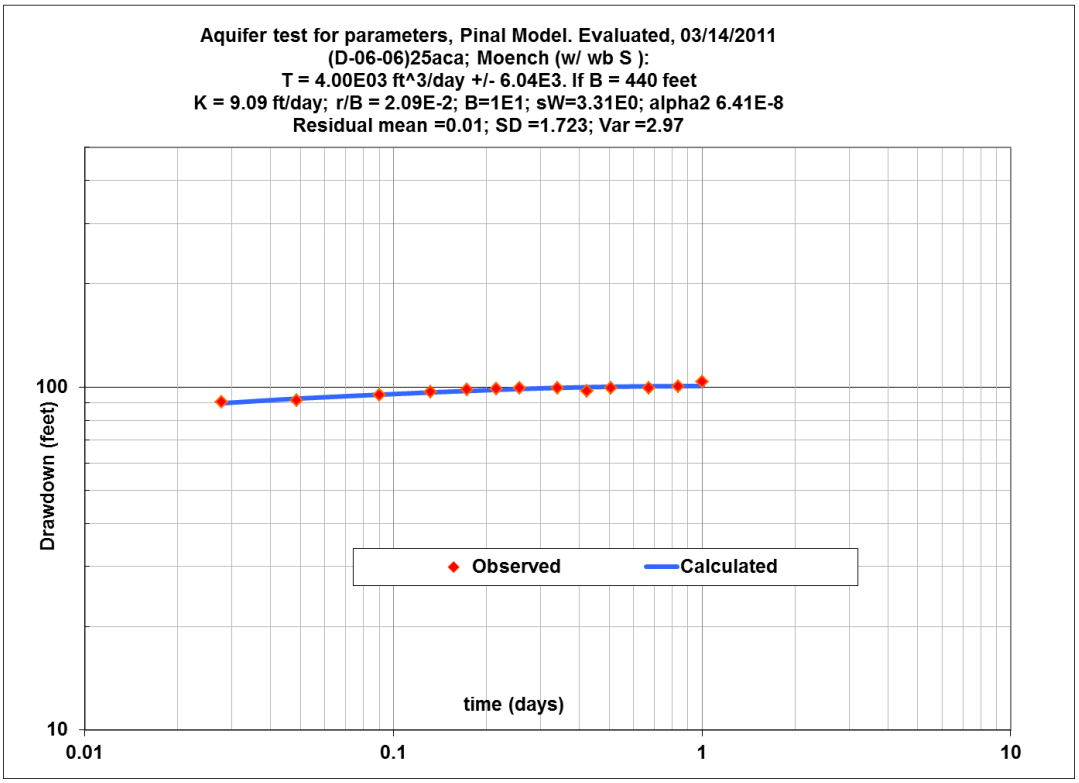

Aquifer test for parameters, Pinal Model. Evaluated, 03/02/2011
(D-07-07)03ccc Moench Leaky (with Storage):
T = 1.49E03 ft^2/day +/- 336. If B=224 feet
K = 1.83 ft/day; r/B=1E-5; B=1E1;Sw=3.04E0; alpha = 6.83E-7
Drawdown (feet)
100
10
time (days)
0.0001
0.001
0.01
0.1
1
10
Observed
Calculated

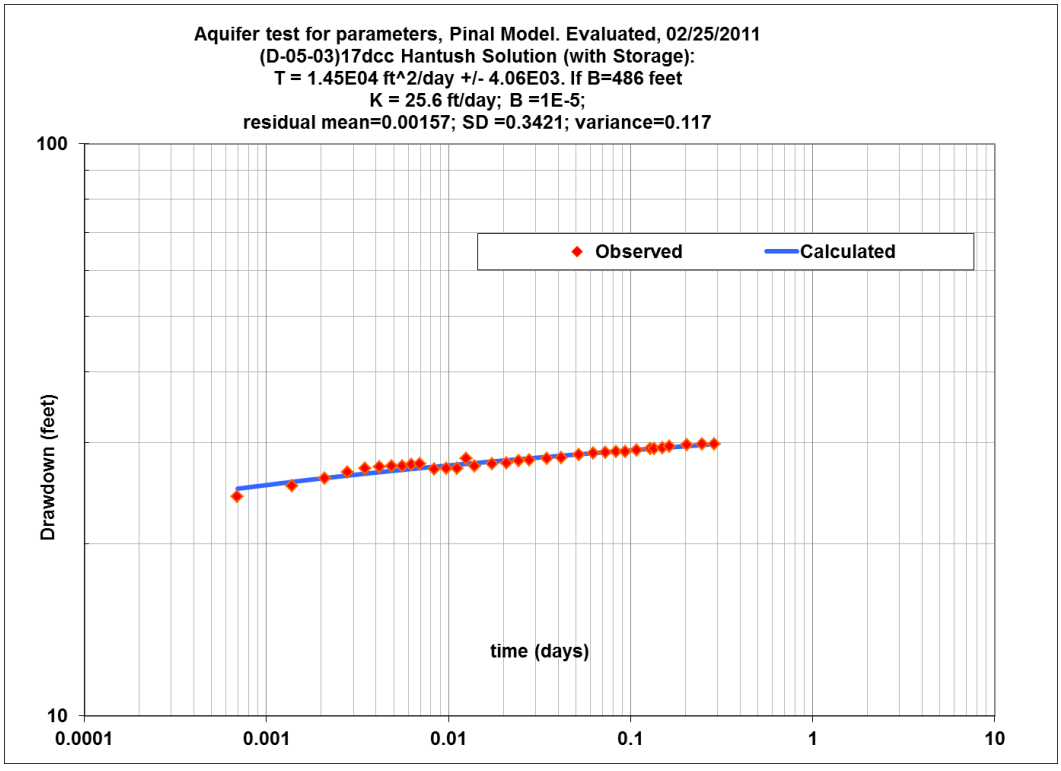

Aquifer test for parameters, Pinal Model. Evaluated, 03/03/2011
(D-08-08)15ccd Theis Solution:
T = 3.33E03 ft^2/day +/- 114. If B=650 feet
K = 5.12 ft/day
Drawdown (feet)
100
10
0.001
0.01
0.1
1
10
time (days)
Observed
Calculated


Aquifer test for parameters, Pinal Model. Evaluated, 03/01/2011
(D-08-06)26dbb Hantush Leaky-Aquifer Solution (no Storage):
T = 6.57E03 ft^2/day +/- 1.27E03. If B=940 feet
K = 6.98 ft/day +/- 1.35 ft/day; r/B = 1E-5 +/- 2.25E-5
Drawdown (feet)
100
10
0.0001
0.001
0.01
0.1
1
10
time (days)
Observed
Calculated


Aquifer test for parameters, Pinal Model. Evaluated, 03/14/2011
(D-06-06)36aca Moench Leaky (with wb S):
T = 1.81E03 ft^3/day +/- 1.14E7. If B = 420 feet
K = 4.3 ft/day; r/B 4.6E-3; B =1e1; Sw =1; alpha 2.44E-12
Residual mean -0.17; SD 3.891; Var 15.14
Drawdown (feet)
100
10
Observed
Calculated
time (days)
0.01
0.1
1
10


Aquifer test for parameters, Pinal Model. Evaluated, 03/14/2011
(D-06-06)25bdb Moench Leaky (with wb S):
T = 4.92E03 ft^3/day +/- 9.58E7. If B = 420 feet
K = 9.11 ft/day; r/B =6.064.6E-3; B =9.59E-01; Sw =1; alpha 7.3E-03
Residual mean 0.0115; SD 0.2989; Var
Drawdown (feet)
100
10
Observed
Calculated
time (days)
0.001
0.01
0.1
1
10


Aquifer test for parameters, Pinal Model. Evaluated, 03/14/2011
(D-06-06)25aca; Moench (w/ wb S):
T = 4.00E03 ft^3/day +/- 6.04E3. If B = 440 feet
K = 9.09 ft/day; r/B = 2.09E-2; B=1E1; sW=3.31E0; alpha2 6.41E-8
Residual mean =0.01; SD =1.723; Var =2.97
Drawdown (feet)
100
10
0.01
0.1
1
10
time (days)
Observed
Calculated


Aquifer test for parameters, Pinal Model. Evaluated, 02/25/2011
(D-05-03)17dcc Hantush Solution (with Storage):
T = 1.45E04 ft^2/day +/- 4.06E03. If B=486 feet
K = 25.6 ft/day; B =1E-5;
residual mean=0.00157; SD =0.3421; variance=0.117
Drawdown (feet)
100
10
0.0001
0.001
0.01
0.1
1
10
time (days)
Observed
Calculated